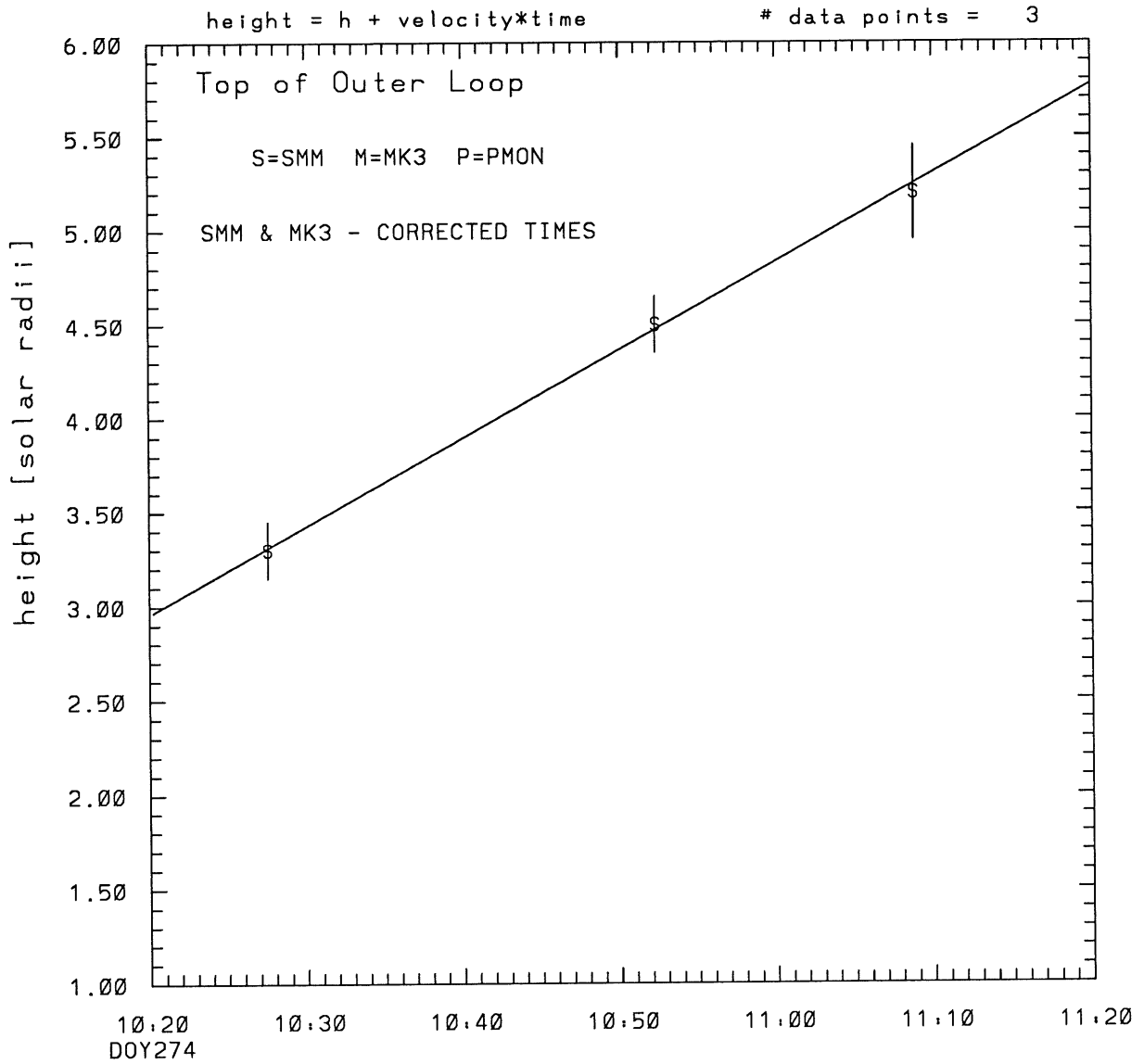
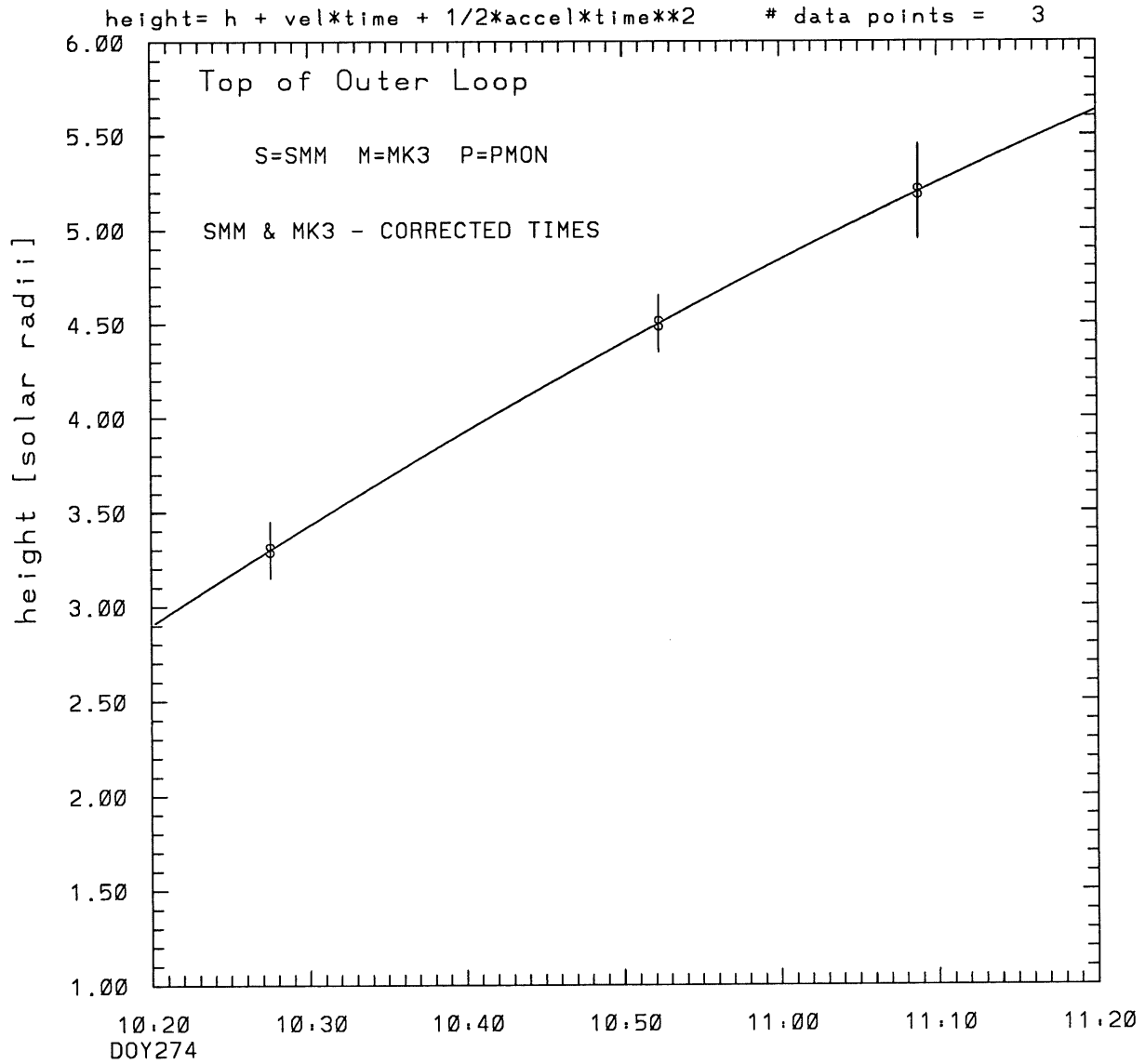


SMM C/P 1989 DOY274 250 +/- 0 degrees



tstart=DOY274 9:40 +/- 0.8 [min.]  
radial velocity= 544. +/- 14. [km/sec]

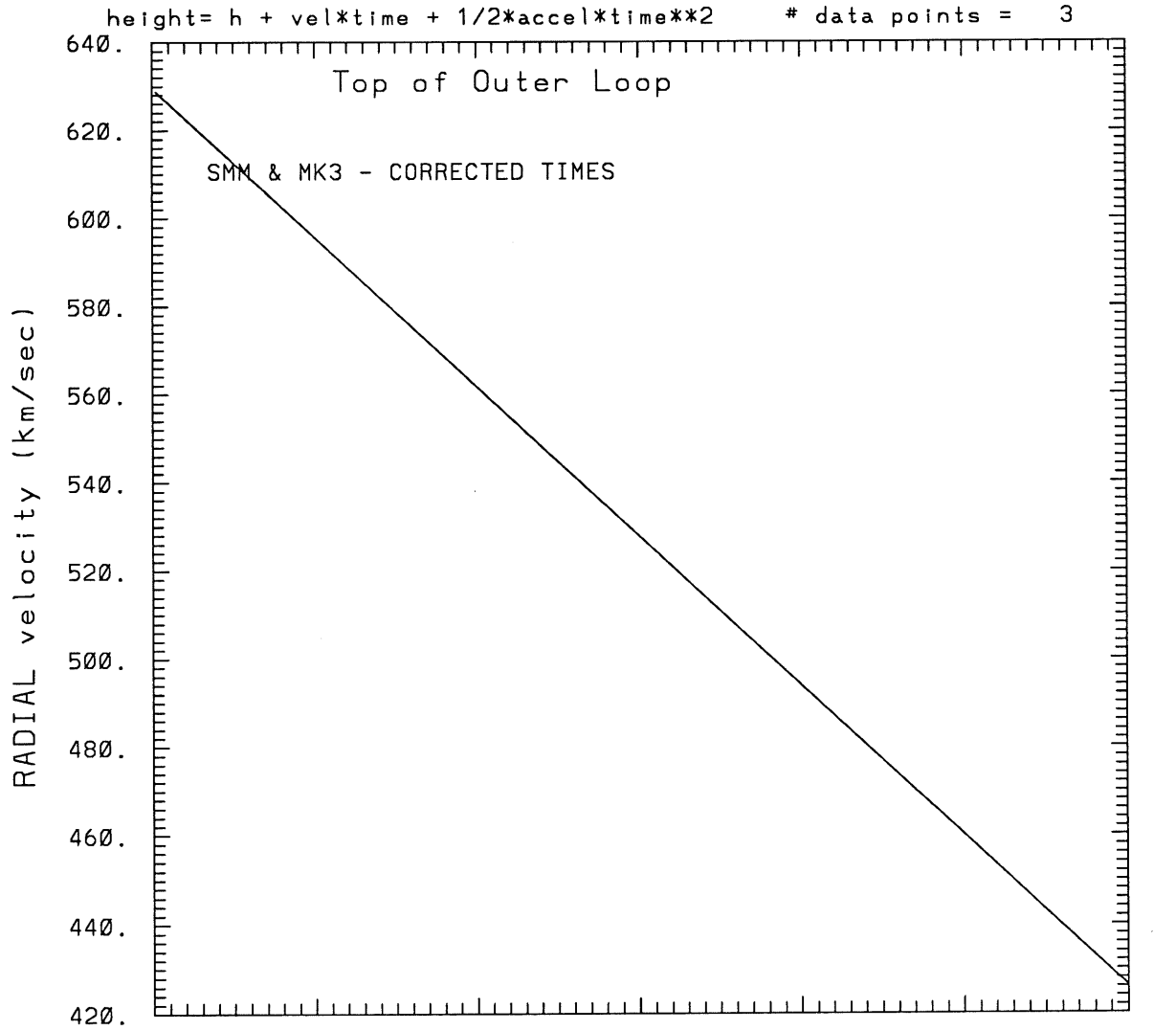
SMM C/P 1989 DOY274 250 +/- 0 degrees



tstart=DOY274 9.48 +/- 0.0 [min.]

radial acceleration = -0.0565 +/- 0.0000 [km/sec\*\*2]

SMM C/P 1989 DOY274 250 +/- 0 degrees



DOY274

tstart=DOY274 9:48 +/- 0.0 [min.]

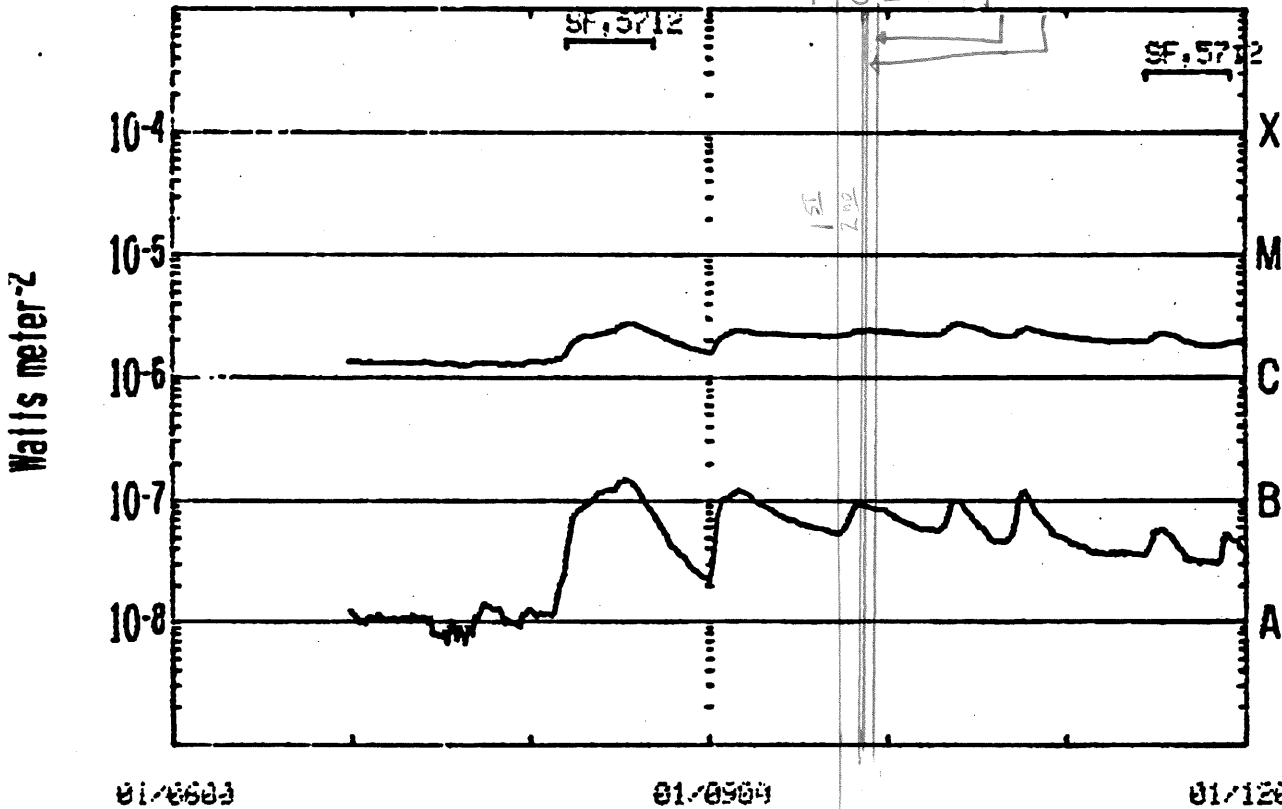
radial acceleration=-.565E-01 km/sec\*\*2

1989 Day 274

MIXED and OPTICAL DATA TOGETHER

STOP Ret.

BEGIN: 01 OCT 89



GOES 7 0.5-4.0A GOES 7 1.0-8.0A  
OPTICAL FLARES

01/0800

01/0900

01/1200

SAA's  
NIGHT

GOES-7 1 MIN DATA; OPTICAL FLARE DUR, IMP, REGION

RUN: 153OUT  
4 OCT 89

\*\*\*\*\*  
This is a 1 order run  
\*\*\*\*\*

\*\*\*\*\*  
INPUT:  
\*\*\*\*\*

year	doj	time	radii	radius	error in angle	error in angle	datatype
1989	274	10:27:32	3.30 +/-	0.15	250.0 +/-	1.0	SMM
1989	274	10:52:18	4.50 +/-	0.15	250.0 +/-	1.0	SMM
1989	274	11: 8:48	5.20 +/-	0.25	250.0 +/-	1.0	SMM

\*\*\*\*\*  
Structure being measured:  
Top of Outer Loop  
\*\*\*\*\*

\*\*\*\*\*  
OUTPUT:  
\*\*\*\*\*

START TIME:

Event began at t = 0 + -0.418E+02 +/- 0.798E+00 [minutes]  
In more convenient units:  
Event began at DOY 274 9:40 +/- 0.798E+00 [minutes]

Origin defined at DOY274 10:20

RADIAL INFORMATION:

RADIAL VELOCITY = 544. +/- 14. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.296E+01 +/- 0.349E-01 [solar radii]  
c(2) = 0.469E-01 +/- 0.121E-02 [radii/min]  
c(2) = 0.544E+03 +/- 0.141E+02 [km/sec]  
c(3) = 0.000E+00 +/- 0.000E+00 [radii/min\*\*2]  
c(3) = 0.000E+00 +/- 0.000E+00 [km/sec\*\*2]

The computed ERRORS in coefficients [BEVINGTON] are:

error in c(1)= 0.63598E-01 [radii] see Bevington pg. 114  
error in c(2)= 0.18669E-02 [radii/min] see Bevington pg. 114

ANGULAR INFORMATION:

ANGULAR VELOCITY = 0.0000E+00 +/- 0.0000E+00[radians/sec]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 250. +/- 0. [degrees]  
a(2) = 0.000E+00 +/- 0.000E+00 [degrees/min]  
a(2) = 0.000E+00 +/- 0.000E+00 [rad/sec]  
a(3) = 0.000E+00 +/- 0.000E+00 [degrees/min\*\*2]  
a(3) = 0.000E+00 +/- 0.000E+00 [rad/sec\*\*2]

The RADIAL velocity at 10:27 = 544. km/sec

The RADIAL velocity at 10:52 = 544. km/sec

The RADIAL velocity at 11: 8 = 544. km/sec

\*\*\*\*\*  
The following info is for estimating goodness of the fit  
\*\*\*\*\*

Fit is ok [ier=1]

Standard Deviation in the height = 0.96  
Standard Deviation in start time measurement = 0.170E+02  
Error in time = 0.11695E+01 using best fit method  
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.105E-02  
Reduced Chi Squared = 0.801E-02  
Chi Squared = 0.801E-02  
The probability for exceeding chi square = 0.974E+00

The correlation coefficient = 0.999E+00  
The probability that no LINEAR correlation exists between the variables = 0.22681  
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

\*\*\*\*\*  
This is a 2 order run  
\*\*\*\*\*

\*\*\*\*\*  
INPUT:  
\*\*\*\*\*

year	day	time	radii	radius	error in angle	error in angle	datatype
1989	274	10:27:32	3.30 +/- 0.15	250.0 +/- 1.0			SMM
1989	274	10:52:18	4.50 +/- 0.15	250.0 +/- 1.0			SMM
1989	274	11: 8:48	5.20 +/- 0.25	250.0 +/- 1.0			SMM

\*\*\*\*\*  
Structure being measured:  
Top of Outer Loop  
\*\*\*\*\*

\*\*\*\*\*  
OUTPUT:  
\*\*\*\*\*

START TIME:

Event began at t = 0 + -0.322E+02 +/- 0.000E+00 [minutes]  
In more convenient units:  
Event began at DOY 274 9:48 +/- 0.000E+00 [minutes]

Origin defined at DOY274 10:20

RADIAL INFORMATION:

RADIAL ACCELERATION = -0.565E-01 +/- 0.658E-06 km/sec\*\*2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.290E+01 +/- 0.890E-06 [solar radii]  
c(2) = 0.543E-01 +/- 0.882E-07 [radii/min]  
c(2) = 0.630E+03 +/- 0.102E-02 [km/sec]  
c(3) = -0.146E-03 +/- 0.170E-08 [radii/min\*\*2]  
c(3) = -0.565E-01 +/- 0.658E-06 [km/sec\*\*2]

ANGULAR INFORMATION:

ANGULAR ACCELERATION= 0.0000E+00 +/- 0.0000E+00[radians/sec\*\*2]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 250. +/- 0. [degrees]  
a(2) = 0.000E+00 +/- 0.000E+00 [degrees/min]  
a(2) = 0.000E+00 +/- 0.000E+00 [rad/sec]  
a(3) = 0.000E+00 +/- 0.000E+00 [degrees/min\*\*2]  
a(3) = 0.000E+00 +/- 0.000E+00 [rad/sec\*\*2]

The RADIAL velocity at 10:27 = 604. km/sec

The RADIAL velocity at 10:52 = 520. km/sec

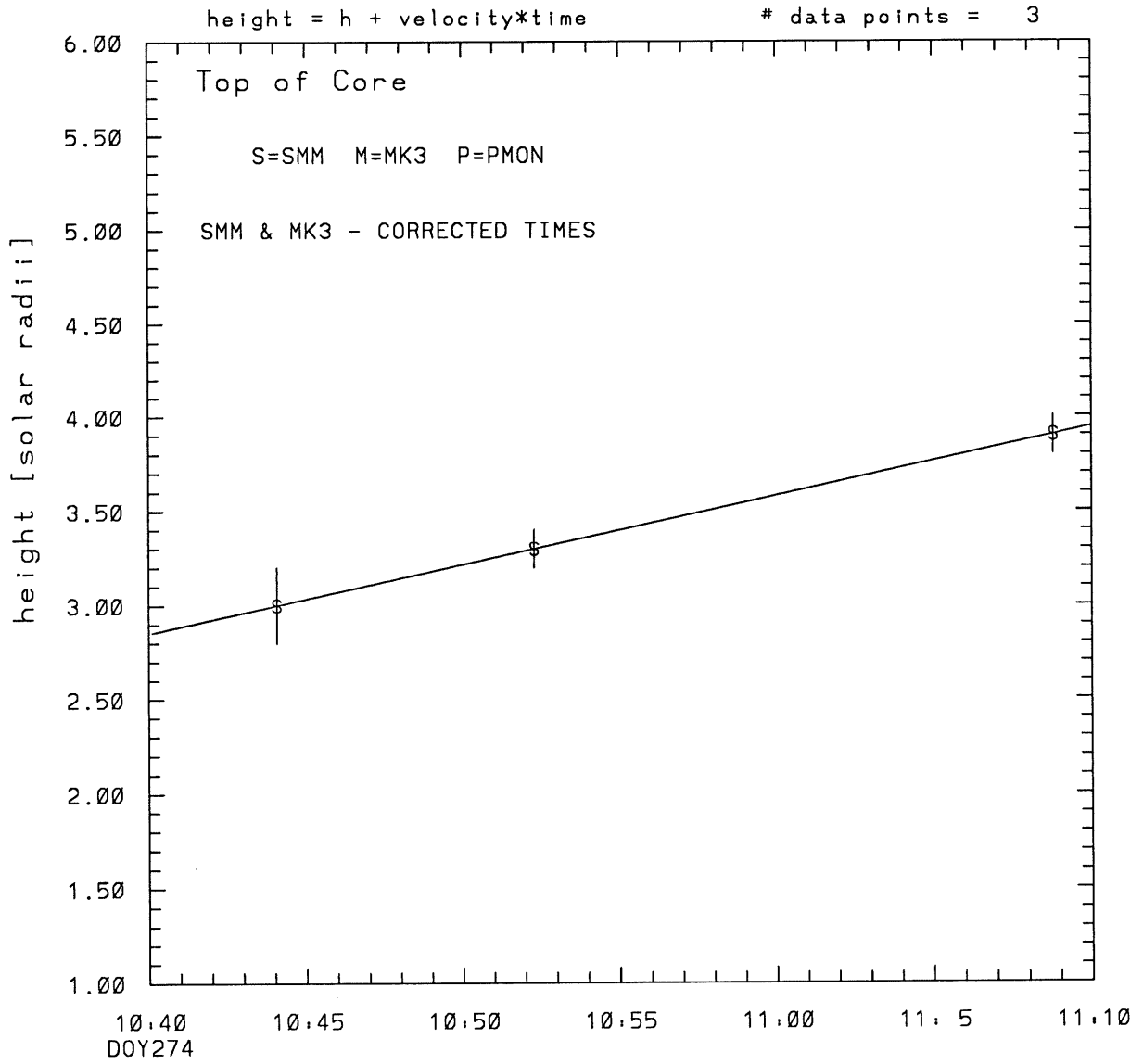
The RADIAL velocity at 11: 8 = 464. km/sec

\*\*\*\*\*  
The following info is for estimating goodness of the fit  
\*\*\*\*\*

Number data points = number of coefficients. No error analysis is possible.  
Correlation coefficient is not computable!

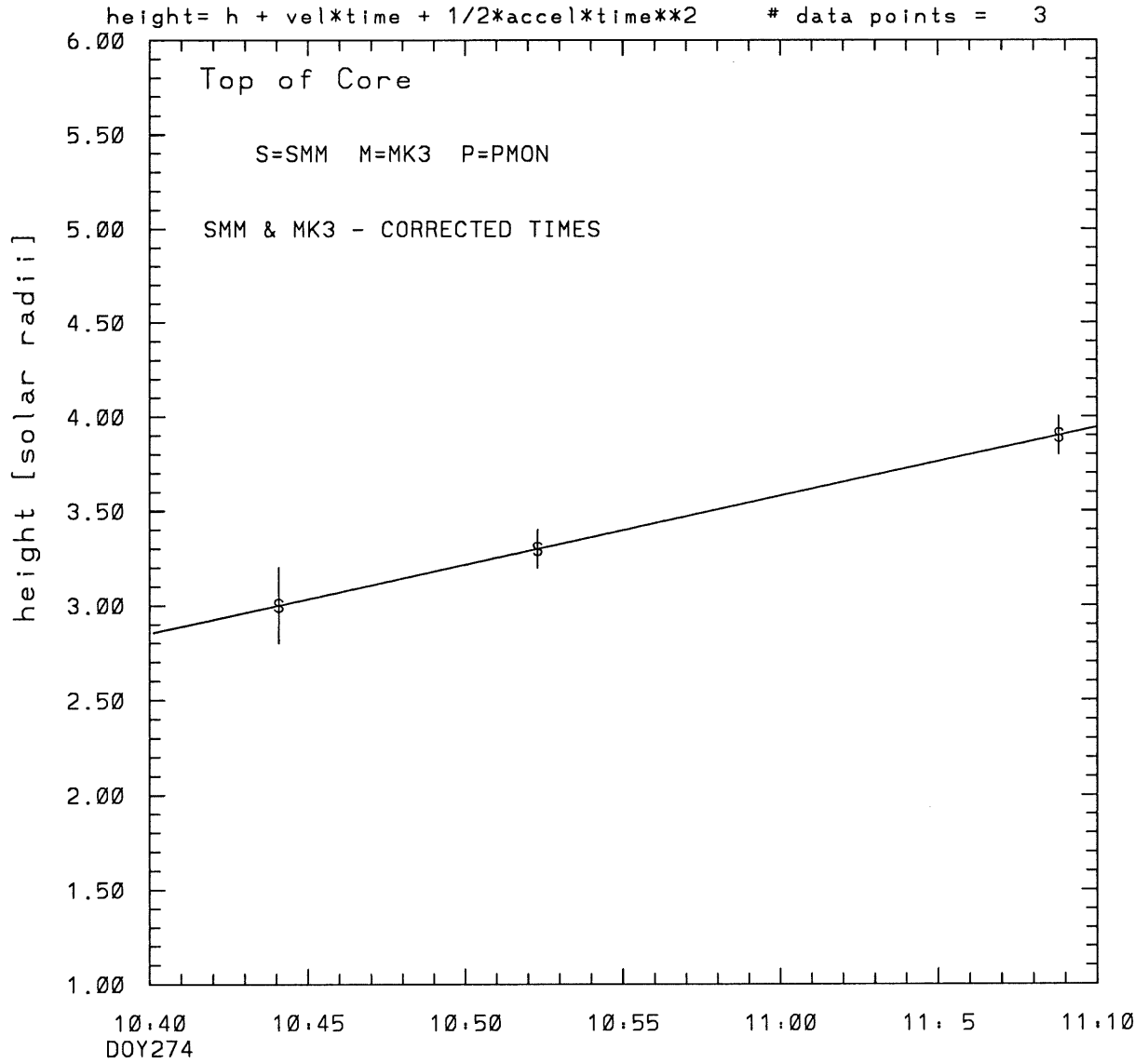


SMM C/P 1989 DOY274 250 +/- 0 degrees



tstart=DOY274 9.51 +/- 0.0 [min.]  
radial velocity= 422. +/- 0. [km/sec]

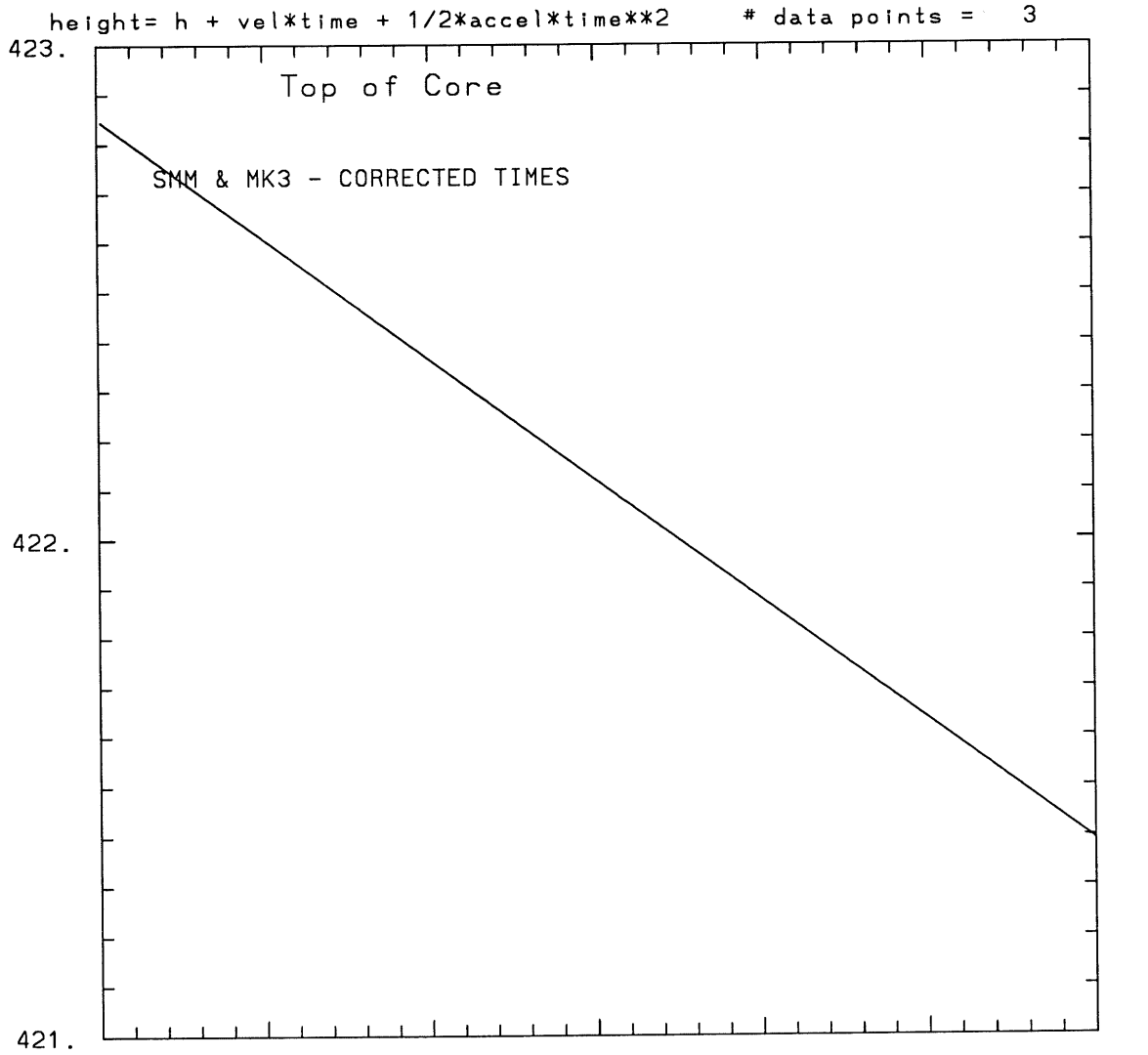
SMM C/P 1989 DOY274 250 +/- 0 degrees



tstart=DOY274 9.51 +/- 0.0 [min.]

radial acceleration = -0.0008 +/- 0.0003 [km/sec\*\*2]

SMM C/P 1989 DOY274 250 +/- 0 degrees



10.40  
DOY274

tstart=DOY274 9:51 +/- 0.0 [min.]

radial acceleration =  $-.810E-03$  km/sec\*\*2

\*\*\*\*\*  
This is a 1 order run  
\*\*\*\*\*

\*\*\*\*\*  
INPUT:  
\*\*\*\*\*

year	day	time	radii	radius	error in angle	error in angle	datatype
1989	274	10:44: 4	3.00 +/-	0.20	250.0 +/-	1.0	SMM
1989	274	10:52:18	3.30 +/-	0.10	250.0 +/-	1.0	SMM
1989	274	11: 8:48	3.90 +/-	0.10	250.0 +/-	1.0	SMM

\*\*\*\*\*  
Structure being measured:  
Top of Core  
\*\*\*\*\*

\*\*\*\*\*  
OUTPUT:  
\*\*\*\*\*

START TIME:

Event began at t = 0 + -0.509E+02 +/- 0.116E-01 [minutes]  
In more convenient units:  
Event began at DOY 274 9:51 +/- 0.116E-01 [minutes]

Origin defined at DOY274 10:40

RADIAL INFORMATION:

RADIAL VELOCITY = 422. +/- 0. km/sec

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.285E+01 +/- 0.251E-03 [solar radii]  
c(2) = 0.364E-01 +/- 0.120E-04 [radii/min]  
c(2) = 0.422E+03 +/- 0.139E+00 [km/sec]  
c(3) = 0.000E+00 +/- 0.000E+00 [radii/min\*\*2]  
c(3) = 0.000E+00 +/- 0.000E+00 [km/sec\*\*2]

The computed ERRORS in coefficients [BEVINGTON] are:

error in c(1)= 0.41060E-03 [radii] see Bevington pg. 114  
error in c(2)= 0.22520E-04 [radii/min] see Bevington pg. 114

ANGULAR INFORMATION:

ANGULAR VELOCITY = 0.0000E+00 +/- 0.0000E+00[radians/sec]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 250. +/- 0. [degrees]  
a(2) = 0.000E+00 +/- 0.000E+00 [degrees/min]  
a(2) = 0.000E+00 +/- 0.000E+00 [rad/sec]  
a(3) = 0.000E+00 +/- 0.000E+00 [degrees/min\*\*2]  
a(3) = 0.000E+00 +/- 0.000E+00 [rad/sec\*\*2]

The RADIAL velocity at 10:44 = 422. km/sec

The RADIAL velocity at 10:52 = 422. km/sec

The RADIAL velocity at 11: 8 = 422. km/sec

\*\*\*\*\*  
The following info is for estimating goodness of the fit  
\*\*\*\*\*

Fit is ok [ier=1]

Standard Deviation in the height = 0.46  
Standard Deviation in start time measurement = 0.103E+02  
Error in time = 0.11028E-01 using best fit method  
See Taylor Error Analysis [Univ of Colorado] pg.78

Value of reduced Chi Squared returned from nllst2 = 0.376E-07  
Reduced Chi Squared = 0.185E-06  
Chi Squared = 0.185E-06  
The probability for exceeding chi square = 0.100E+01

The correlation coefficient = 0.100E+01  
The probability that no LINEAR correlation exists between the variables = 0.00001  
SEE BEVINGTON "Data Reduction and Error Analysis" [1969]

\*\*\*\*\*  
This is a 2 order run  
\*\*\*\*\*

\*\*\*\*\*  
INPUT:  
\*\*\*\*\*

year	doy	time	radii	radius	error in angle	error in angle	datatype
1989	274	10:44: 4	3.00 +/-	0.20	250.0 +/-	1.0	SMM
1989	274	10:52:18	3.30 +/-	0.10	250.0 +/-	1.0	SMM
1989	274	11: 8:48	3.90 +/-	0.10	250.0 +/-	1.0	SMM

\*\*\*\*\*  
Structure being measured:  
Top of Core  
\*\*\*\*\*

\*\*\*\*\*  
OUTPUT:  
\*\*\*\*\*

START TIME:

Event began at t = 0 + -0.507E+02 +/- 0.000E+00 [minutes]  
In more convenient units:  
Event began at DOY 274 9:51 +/- 0.000E+00 [minutes]

Origin defined at DOY274 10:40

RADIAL INFORMATION:

RADIAL ACCELERATION = -0.810E-03 +/- 0.342E-03 km/sec\*\*2

The computed RADIAL coefficients and errors FROM NLLST2 are:

c(1) = 0.285E+01 +/- 0.253E-03 [solar radii]  
c(2) = 0.365E-01 +/- 0.333E-04 [radii/min]  
c(2) = 0.423E+03 +/- 0.387E+00 [km/sec]  
c(3) = -0.209E-05 +/- 0.883E-06 [radii/min\*\*2]  
c(3) = -0.810E-03 +/- 0.342E-03 [km/sec\*\*2]

ANGULAR INFORMATION:

ANGULAR ACCELERATION= 0.0000E+00 +/- 0.0000E+00[radians/sec\*\*2]

The computed ANGULAR coefficients and errors FROM NLLST2 are:

a(1) = 250. +/- 0. [degrees]  
a(2) = 0.000E+00 +/- 0.000E+00 [degrees/min]  
a(2) = 0.000E+00 +/- 0.000E+00 [rad/sec]  
a(3) = 0.000E+00 +/- 0.000E+00 [degrees/min\*\*2]  
a(3) = 0.000E+00 +/- 0.000E+00 [rad/sec\*\*2]

The RADIAL velocity at 10:44 = 423. km/sec

The RADIAL velocity at 10:52 = 422. km/sec

The RADIAL velocity at 11: 8 = 421. km/sec

\*\*\*\*\*  
The following info is for estimating goodness of the fit  
\*\*\*\*\*

Number data points = number of coefficients. No error analysis is possible.  
Correlation coefficient is not computable!